

CLAIMS

What is claimed is:

1. A wireless device, comprising:
host logic;
network interface logic; and
an antenna;
wherein the network interface logic transmits packets comprising symbols containing a plurality of data tones and wherein the network interface logic varies the number of data tones among the symbols.
2. The wireless device of claim 1 wherein some symbols transmitted by the network interface logic comprise pilot tones that are used to facilitate demodulation and other symbols do not have pilot tones.
3. The wireless device of claim 2 wherein some symbols comprise 48 data tones and 4 pilot tones and other symbols comprise 52 data tones and no pilot tones.
4. The wireless device of claim 1 wherein the number of data tones is varied according to user input.
5. The wireless device of claim 1 wherein the network interface logic varies the number of data tones per symbol within a packet so as to comprise either a first number of data tones or a second number of data tones, and wherein the first number is greater

than the second number and more symbols per packet are transmitted by the network interface logic having the first number of data tones.

6. A wireless network, comprising:

a first wireless device;

a second wireless device configured to communicate with the first wireless device;

wherein the first wireless device transmits to the second wireless device packets containing symbols containing a variable number of data tones.

7. The wireless network of claim 6 wherein the second wireless device transmits to the first wireless device packets containing symbols containing a variable number of data tones.

8. The wireless network of claim 6 wherein some symbols in a packet transmitted by the first wireless device comprise pilot tones that are used to facilitate demodulation and other symbols do not have pilot tones.

9. The wireless network of claim 8 wherein some symbols in a transmitted packet comprise 48 data tones and 4 pilot tones and other symbols comprise 52 data tones and no pilot tones.

10. The wireless network of claim 6 wherein the number of data tones is varied among the symbols in a packet according to user specification.

11. The wireless network of claim 6 wherein the first wireless device varies the number of data tones per symbol within a packet so as to comprise either a first number of data tones or a second number of data tones, and wherein the first number is greater than the second number and more symbols per packet are transmitted by the first wireless device having the first number of data tones.

12. A method, comprising:
determining a number of data tones to include in a symbol;
forming the symbol with the determined number of data tones;
transmitting the symbol; and
changing the number of data tones to form another symbol.

13. The method of claim 12 wherein the number of data tones comprises either a first number of data tones or a second number of data tones.

14. The method of claim 12 further comprising varying a number of pilot tones.

15. The method of claim 12 wherein forming the symbol comprises including 48 data tones and 4 pilot tones and varying the number of data tones comprises including 52

data tones and the method further comprises including no pilot tones with the 52 data tones.

16. A wireless device, comprising:

host logic;

an antenna; and

means for transmitting symbols containing a plurality of data tones and for varying the number of data tones among the symbols.

17. The wireless device of claim 16 further comprising means for varying the number of pilot tones among the symbols.

18. The wireless device of claim 16 wherein the means for varying the number of data tones comprises means for varying the number of data tones according to user input.

19. The wireless device of claim 16 wherein the means for varying the number of data tones comprises means for varying the number of data tones so as to comprise either a first number of data tones or a second number of data tones.